

The Claims

What is claimed is:

CLAIM 1

- 1 An enclosure apparatus comprising:
- 2 a substrate having first and second planar surfaces and defining an aperture in said
- 3 substrate through said planar surfaces;
- 4 a die disposed within said aperture, said die having first and second planar surfaces with
- 5 conductive bonding pads on said first surface of said die;
- 6 a first layer of glass disposed over said first surfaces of said substrate and said die, said
- 7 glass omitted from said bonding pads;
- 8 a second layer of glass disposed over said second surface of said substrate and at least a
- 9 portion of said second surface of said die; and
- 10 conductive traces disposed on said first layer of glass and operably coupled to said
- 11 conductive bonding pads of said die and extending to an outer periphery of said first layer of
- 12 glass.

CLAIM 2

- 1 The enclosure of claim 1 wherein said enclosure is interconnected at said outer periphery of said
- 2 enclosure through a pressure-fit.

CLAIM 3

- 1 The flexible enclosure of claim 2 wherein said conductive traces are disposed from said die to
2 opposite sides of said enclosure.

CLAIM 4

- 1 The enclosure of claim 1 further including a metallic heat sink disposed on said second surface of
2 said die.

CLAIM 5

- 1 The enclosure of claim 3 wherein said substrate is silica.

CLAIM 6

- 1 The enclosure of claim 1 wherein one or more of said layers of said glass flow into a void
2 between said substrate and said die.

CLAIM 7

- 1 An enclosure apparatus comprising:
2 a flexible substrate, said substrate having first and second planar surfaces and defining an

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aperture in said substrate through said planar surfaces;

a die disposed within said aperture, said die having first and second planar surfaces with
conductive bonding pads on said first surface of said die;

a first layer of glass disposed over said first surfaces of said substrate and said die, said
glass omitted from said bonding pads;

a second layer of glass disposed over said second surface of said substrate and at least a
portion of said second surface of said die; and

conductive traces disposed on said first layer of glass and operably coupled to said
conductive bonding pads of said die and extending to an outer periphery of said first layer of
glass.

CLAIM 8

The enclosure of claim 7 wherein said enclosure is interconnected at said outer periphery of said
enclosure through a pressure-fit.

CLAIM 9

The enclosure of claim 7 wherein said conductive traces are disposed from said die to opposite
sides of said enclosure.

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CLAIM 10

- 1 The enclosure of claim 8 wherein one or more of said planar surfaces are made arcuate when said
2 enclosure is interconnected.

CLAIM 11

- 1 The enclosure of claim 10 wherein said enclosure is interconnected at said outer periphery of said
2 enclosure through a pressure-fit.

CLAIM 12

- 1 The enclosure of claim 11 wherein said conductive traces are disposed from said die to opposite
2 sides of said enclosure.

CLAIM 13

- 1 The enclosure of claim 7 further including a metallic heat sink disposed on said second surface of
2 said die.

CLAIM 14

- 1 The enclosure of claim 7 wherein said flexible substrate is silica.

CLAIM 15

1 The enclosure of claim 7 wherein one or more of said layers of said glass flow into a void
2 between said substrate and said die.

CLAIM 16

1 A flexible enclosure apparatus comprising:

2 a flexible silica substrate, said silica substrate having first and second planar surfaces and
3 defining an aperture in said substrate through said planar surfaces;

4 a die disposed within said aperture, said die having first and second planar surfaces
5 substantially coplanar with said first and second surfaces of said silica substrate, respectively,
6 said die having conductive bonding pads on its said first surface;

7 a first layer of glass disposed over said first surfaces of said substrate and said die; said
8 glass omitted from said bonding pads;

9 a second layer of glass disposed over said second surface of said substrate and at least a
10 portion of said second surface of said die; and

11 conductive traces disposed on said first layer of glass and operably coupled to said
12 conductive bonding pads of said die and extending to an outer periphery of said first layer of
13 glass, said conductive traces making a pressure-fit interconnect at said outer periphery of said
14 enclosure when said enclosure is interconnected and wherein one or more of said planar surfaces
15 are made arcuate when said enclosure is interconnected.

CLAIM 17

- 1 The flexible enclosure of claim 16 wherein said conductive traces are disposed from said die to
2 opposite sides of said enclosure.

CLAIM 18

- 1 The flexible enclosure of claim 16 further including a metallic heat sink disposed on said second
2 surface of said die.

CLAIM 19

- 1 The enclosure of claim 16 wherein one or more of said layers of said glass flow into a void
2 between said substrate and said die.